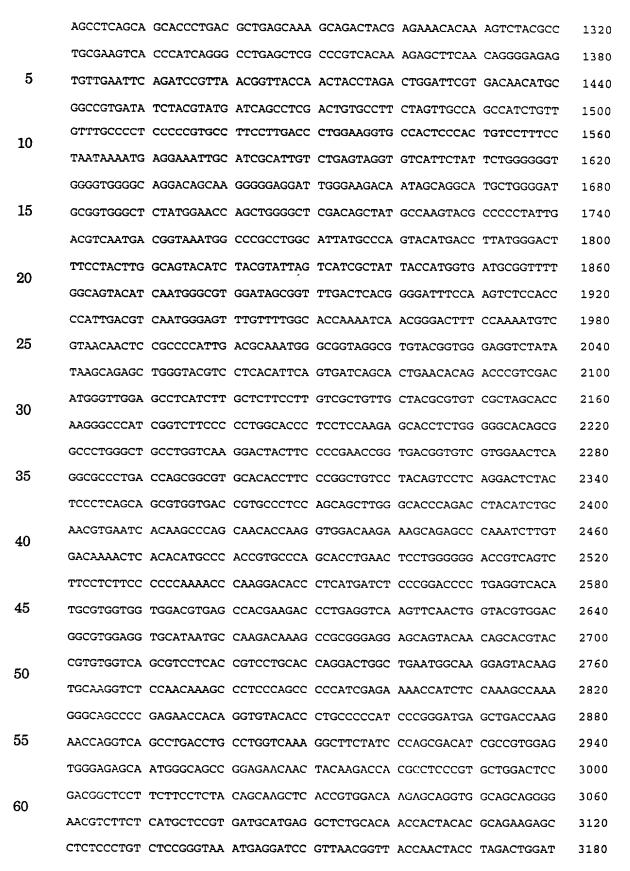
## G. SEQUENCE LISTING

5	(1)	GEN	VERAL INFORM	MATION
10		(i)	APPLICANT;	Darrell Anderson, Nabil Hanna, John Leonard, Roland Newman and Mitchell Reff and William H. Rastetter
15		(ii)	TITLE OF IN	VENTION: THERAPEUTIC APPLICATION OF CHIMERIC AND RADIOLABELED ANTIBODIES TO HUMAN B LYMPHOCYTE RESTRICTED DIFFERENTIATION ANTIGEN FOR
		/···\	MANADED OF	TREATMENT OF B CELL LYMPHOMA
		(iii)	NUMBER OF	SEQUENCES: 8
20		(iv)	CORRESPON	DING ADDRESS:
25			(A) ADDRE (B) STREET (C) CITY: (D) STATE: (E) COUNT (F) ZIP:	San Diego California
30		(v)	COMPUTER R	READABLE FORM:
35			(B) COMPU (C) OPERA	M TYPE: Diskette, 3.5 inch, 1.44 Mb ITER: Macintosh TING SYSTEM: MS.DOS ARE: Microsoft Word 5.0
ວບ		(vi	CURRENT AP	PLICATION DATA:
40			(B) FILING	ATION NUMBER: DATE: FICATION:
		(viii)	ATTORNEY/A	GENT INFORMATION:
45			(B) REGIST	Burgoon, Richard P. Jr. RATION NUMBER: 34,787 ENCE/DOCKET NUMBER:
		(ix)	TELECOMMU	NICATION INFORMATION:
50			(A) TELEPH (B) TELEFA	HONE: (619) 550-8500 AX: (619) 550-8750

	(2)	INFO	RMAT	ION I	FOR SEQ ID	NO: 1:			
5		(i)	SEQU	JENC	E CHARAC'	TERISTICS:	:		
่อ			(A) (B) (C) (D)	TYPE	GTH: 8540 E: nucleic ac NDEDNES OLOGY: circ	id S: single			
10		(ii)	MOLI	ECUL	E TYPE: DI	NA (genomic	:)		
		(iii)			ΓICAL: yes	(80	•		
15		•			J				
15		(iv)	ANTI	-SENS	SE: no				
		(ix)	SEQU	JENCI	E DESCRIP	IION: SEQ	ID NO: 1:		
20	GAC	GTCGCG	cccc'	TCTAGG	CCTCCAAAAA	. AGCCTCCTCA	CTACTTCTGG	AATAGCTCAG	60
	AGG	CCGAGGC	GGCCI	rcggcc	TCTGCATAAA	TAAAAAAAAT	TAGTCAGCCA	TGCATGGGGC	120
25	GGA	GAATGGG	CGGA	ACTGGG	CGGAGTTAGG	GGCGGGATGG	GCGGAGTTAG	GGGCGGGACT	180
	ATG	STTGCTG	ACTA	attgag	ATGCATGCTT	TGCATACTTC	TGCCTGCTGG	GGAGCCTGGG	240
	GACT	TTTCCAC	ACCTO	GTTGC	TGACTAATTG	AGATGCATGC	TTTGCATACT	TCTGCCTGCT	300
30	GGGG	SAGCCTG	GGGAC	CTTTCC	ACACCCTAAC	TGACACACAT	TCCACAGAAT	TAATTCCCCT	360
	AGTT	TATTAAT	AGTAA	TCAAT	TACGGGGTCA	TTAGTTCATA	GCCCATATAT	GGAGTTCCGC	420
	GTTA	CATAAC	TTACG	GTAAA	TGGCCCGCCT	GGCTGACCGC	CCAACGACCC	CCGCCCATTG	480
35	ACGT	CAATAA	TGACG	TATGT	TCCCATAGTA	ACGCCAATAG	GGACTTTCCA	TTGACGTCAA	540
	TGGG	TGGACT	ATTTA	CGGTA	AACTGCCCAC	TTGGCAGTAC	ATCAAGTGTA	TCATATGCCA	600
40	AGTA	CGCCCC	CTATT	GACGT	CAATGACGGT	AAATGGCCCG	CCTGGCATTA	TGCCCAGTAC	660
	ATGA	CCTTAT	GGGAC	TTTCC	TACTTGGCAG	TACATCTACG	TATTAGTCAT	CGCTATTACC	720
	ATGG	TGATGC	GGTTT	TGGCA	GTACATCAAT	GGGCGTGGAT	AGCGGTTTGA	CTCACGGGGA	780
<b>4</b> 5	TTTC	CAAGTC	TCCAC	CCCAT	TGACGTCAAT	GGGAGTTTGT	TTTGGCACCA	AAATCAACGG	840
	GACT	TTCCAA	AATGT	CGTAA	CAACTCCGCC	CCATTGACGC	AAATGGGCGG	TAGGCGTGTA	900
50	CGGT	GGGAGG	TCTAT	ATAAG	CAGAGCTGGG	TACGTGAACC	GTCAGATCGC	CTGGAGACGC	960
	CATC	ACAGAT	CTCTC	ACCAT	GAGGGTCCCC	GCTCAGCTCC	TGGGGCTCCT	GCTGCTCTGG	1020
	CTCC	CAGGTG	CACGA	TGTGA	TGGTACCAAG	GTGGAAATCA	AACGTACGGT	GGCTGCACCA	1080
55	TCTG	TCTTCA	TCTTC	CCGCC	ATCTGATGAG	CAGTTGAAAT	CTGGAACTGC	CTCTGTTGTG	1140
	TGCC	TGCTGA	ATAAC	TTCTA	TCCCAGAGAG	GCCAAAGTAC	AGTGGAAGGT	GGATAACGCC	1200
30	CTCC	AATCGG	GTAAC	TCCCA	GGAGAGTGTC	ACAGAGCAGG	ACAGCAAGGA	CAGCACCTAC	1260

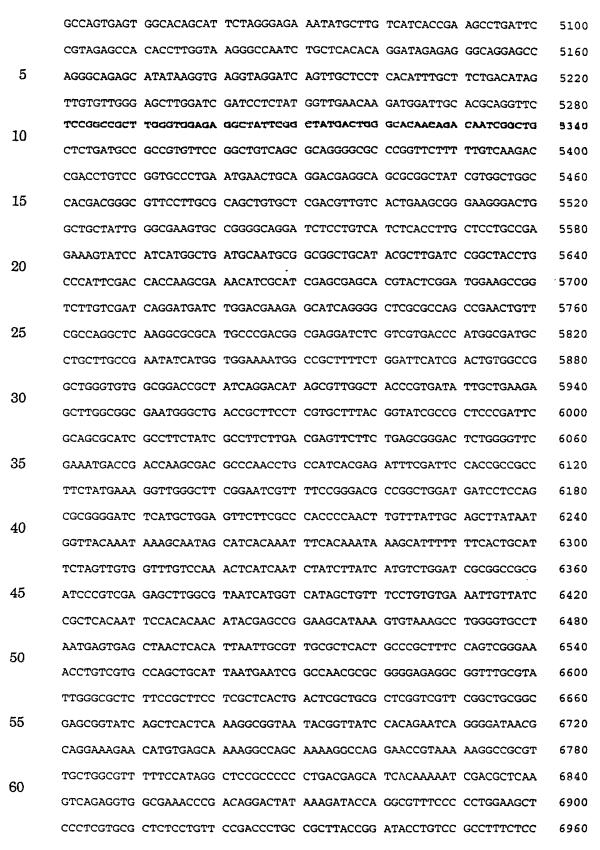






TCGTGACAAC ATGCGGCCGT GATATCTACG TATGATCAGC CTCGACTGTG CCTTCTAGTT 3240 GCCAGCCATC TGTTGTTTGC CCCTCCCCG TGCCTTCCTT GACCCTGGAA GGTGCCACTC 3300 5 CCACTGTCCT TTCCTAATAA AATGAGGAAA TTGCATCGCA TTGTCTGAGT AGGTGTCATT 3360 альктары авытардын омыраваны друганын проттавы ометары 10 GGCATGCTGG GGATGCGGTG GGCTCTATGG AACCAGCTGG GGCTCGACAG CGCTGGATCT 3480 CCCGATCCCC AGCTTTGCTT CTCAATTTCT TATTTGCATA ATGAGAAAAA AAGGAAAATT 3540 AATTTTAACA CCAATTCAGT AGTTGATTGA GCAAATGCGT TGCCAAAAAG GATGCTTTAG 3600 15 AGACAGTGTT CTCTGCACAG ATAAGGACAA ACATTATTCA GAGGGAGTAC CCAGAGCTGA 3660 GACTCCTAAG CCAGTGAGTG GCACAGCATT CTAGGGAGAA ATATGCTTGT CATCACCGAA 20 GCCTGATTCC GTAGAGCCAC ACCTTGGTAA GGGCCAATCT GCTCACACAG GATAGAGAGG 3780 GCAGGAGCCA GGGCAGAGCA TATAAGGTGA GGTAGGATCA GTTGCTCCTC ACATTTGCTT 3840 CTGACATAGT TGTGTTGGGA GCTTGGATAG CTTGGACAGC TCAGGGCTGC GATTTCGCGC 3900 25 CAAACTTGAC GGCAATCCTA GCGTGAAGGC TGGTAGGATT TTATCCCCGC TGCCATCATG 3960 GTTCGACCAT TGAACTGCAT CGTCGCCGTG TCCCAAAATA TGGGGATTGG CAAGAACGGA 4020 30 GACCTACCCT GGCCTCCGCT CAGGAACGAG TTCAAGTACT TCCAAAGAAT GACCACAACC 4080 TCTTCAGTGG AAGGTAAACA GAATCTGGTG ATTATGGGTA GGAAAACCTG GTTCTCCATT 4140 CCTGAGAAGA ATCGACCTTT AAAGGACAGA ATTAATATAG TTCTCAGTAG AGAACTCAAA 4200 35 GAACCACCAC GAGGAGCTCA TTTTCTTGCC AAAAGTTTGG ATGATGCCTT AAGACTTATT 4260 GAACAACCCG AATTGGCAAG TAAAGTAGAC ATGGTTTGGA TAGTCGGAGG CAGTTCTGTT 4320 40 TACCAGGAAG CCATGAATCA ACCAGGCCAC CTTAGACTCT TTGTGACAAG GATCATGCAG 4380 GAATTTGAAA GTGACACGTT TTTCCCAGAA ATTGATTTGG GGAAATATAA ACTTCTCCCA 4440 GAATACCCAG GCGTCCTCTC TGAGGTCCAG GAGGAAAAAG GCATCAAGTA TAAGTTTGAA 4500 45 GTCTACGAGA AGAAAGACTA ACAGGAAGAT GCTTTCAAGT TCTCTGCTCC CCTCCTAAAG 4560 CTATGCATTT TTATAAGACC ATGGGACTTT TGCTGGCTTT AGATCAGCCT CGACTGTGCC 4620 50 TTCTAGTTGC CAGCCATCTG TTGTTTGCCC CTCCCCCGTG CCTTCCTTGA CCCTGGAAGG 4680 TGCCACTCCC ACTGTCCTTT CCTAATAAAA TGAGGAAATT GCATCGCATT GTCTGAGTAG 4740 GTGTCATTCT ATTCTGGGGG GTGGGGTGGG GCAGGACAGC AAGGGGGAGG ATTGGGAAGA 4800 55 CAATAGCAGG CATGCTGGGG ATGCGGTGGG CTCTATGGAA CCAGCTGGGG CTCGAGCTAC 4860 TAGCTTTGCT TCTCAATTTC TTATTTGCAT AATGAGAAAA AAAGGAAAAT TAATTTTAAC 4920 60 ACCAATTCAG TAGTTGATTG AGCAAATGCG TTGCCAAAAA GGATGCTTTA GAGACAGTGT 4980 TCTCTGCACA GATAAGGACA AACATTATTC AGAGGGAGTA CCCAGAGCTG AGACTCCTAA 5040







		CAGCEAFTEG	TAACAGGATT	AGCAGAGCGA	COTATOTACO	спотостуся	СУСТАСТАСТ
	10	AGTGGTGGCC	TAACTACGGC	TACACTAGAA	GGACAGTATT	TGGTATCTGC	GCTCTGCTGA
		AGCCAGTTAC	CTTCGGAAAA	AGAGTTGGTA	GCTCTTGATC	CGGCAAACAA	ACCACCGCTG
	15	GTAGCGGTGG	TTTTTTTGTT	TGCAAGCAGC	AGATTACGCG	CAGAAAAAA	GGATCTCAAG
		AAGATCCTTT	GATCTTTTCT	ACGGGGTCTG	ACGCTCAGTG	GAACGAAAAC	TCACGTTAAG
		GGATTTTGGT	CATGAGATTA	TCAAAAAGGA	TCTTCACCTA	GATCCTTTTA	TAAAAAT
	20	GAAGTTTTAA	ATCAATCTAA	AGTATATAŢG	AGTAAACTTG	GTCTGACAGT	TACCAATGCT
		TAATCAGTGA	GGCACCTATC	TCAGCGATCT	GTCTATTTCG	TTCATCCATA	GTTGCCTGAC
	25	TCCCCGTCGT	GTAGATAACT	ACGATACGGG	AGGGCTTACC	ATCTGGCCCC	AGTGCTGCAA
		TGATACCGCG	AGACCCACGC	TCACCGGCTC	CAGATTTATC	AGCAATAAAC	CAGCCAGCCG
	30	GAAGGGCCGA	GCGCAGAAGT	GGTCCTGCAA	CTTTATCCGC	CTCCATCCAG	TCTATTAATT
		GTTGCCGGGA	AGCTAGAGTA	AGTAGTTCGC	CAGTTAATAG	TTTGCGCAAC	GTTGTTGCCA
		TTGCTACAGG	CATCGTGGTG	TCACGCTCGT	CGTTTGGTAT	GGCTTCATTC	AGCTCCGGTT
	35	CCCAACGATC	AAGGCGAGTT	ACATGATCCC	CCATGTTGTG	CAAAAAAGCG	GTTAGCTCCT
		TCGGTCCTCC	GATCGTTGTC	AGAAGTAAGT	TGGCCGCAGT	GTTATCACTC	ATGGTTATGG
		CAGCACTGCA	TAATTCTCTT	ACTGTCATGC	CATCCGTAAG	ATGCTTTTCT	GTGACTGGTG
	40	AGTACTCAAC	CAAGTCATTC	TGAGAATAGT	GTATGCGGCG	ACCGAGTTGC	TCTTGCCCGG
		CGTCAATACG	GGATAATACC	GCGCCACATA	GCAGAACTTT	AAAAGTGCTC	ATCATTGGAA
	45	AACGTTCTTC	GGGGCGAAAA	CTCTCAAGGA	TCTTACCGCT	GTTGAGATCC	AGTTCGATGT
		AACCCACTCG	TGCACCCAAC	TGATCTTCAG	CATCTTTTAC	TTTCACCAGC	GTTTCTGGGT
		GAGCAAAAAC	AGGAAGGCAA	AATGCCGCAA	AAAAGGGAAT	AAGGGCGACA	CGGAAATGTT
	50	GAATACTCAT	ACTCTTCCTT	TTTCAATATT	ATTGAAGCAT	TTATCAGGGT	TATTGTCTCA
		TGAGCGGATA	CATATTTGAA	TGTATTTAGA	AAAATAAACA	AATAGGGGTT	CCGCGCACAT

CTTCGGGAAG CGTGGCGCTT TCTCAATGCT CACGCTGTAG GTATCTCAGT TCGGTGTAGG

TCGTTCGCTC CAAGCTGGGC TGTGTGCACG AACCCCCCGT TCAGCCCGAC CGCTGCGCCT

TATCCGGTAA CTATCGTCTT GAGTCCAACC CGGTAAGACA CGACTTATCG CCACTGGCAG

## (3) INFORMATION FOR SEQ ID NO: 2:

TTCCCGAAA AGTGCCACCT

60 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9209 bases

10	(iv)	ANTI-SEN	SE: no				
10	(ix)	SEQUENC	E DESCRIP	TION: SEQ	ID NO: 2:		
15	GACGTCGCGG	CCGCTCTAGG	CCTCCAAAA	AGCCTCCTCA	CTACTTCTGC	AATAGCTCAG	60
	AGGCCGAGGC	GGCCTCGGCC	TCTGCATAAA	ТАААААААТ	TAGTCAGCC	TGCATGGGGC	120
	GGAGAATGGG	CGGAACTGGG	CGGAGTTAGG	GGCGGGATGG	GCGGAGTTAG	GGGCGGGACT	180
20	ATGGTTGCTG	ACTAATTGAG	ATGCATGCTT	TGCATACTTC	TGCCTGCTGG	GGAGCCTGGG	240
	GACTTTCCAC	ACCTGGTTGC	TGACTAATTG	AGATGCATGC	TTTGCATACT	TCTGCCTGCT	300
25	GGGGAGCCTG	GGGACTTTCC	ACACCCTAAC	TGACACACAT	TCCACAGAAT	TAATTCCCCT	360
20	AGTTATTAAT	AGTAATCAAT	TACGGGGTCA	TTAGTTCATA	GCCCATATAT	GGAGTTCCGC	420
	GTTACATAAC	TTACGGTAAA	TGGCCCGCCT	GGCTGACCGC	CCAACGACCC	CCGCCCATTG	480
30	ACGTCAATAA	TGACGTATGT	TCCCATAGTA	ACGCCAATAG	GGACTTTCCA	TTGACGTCAA	540
	TGGGTGGACT	ATTTACGGTA	AACTGCCCAC	TTGGCAGTAC	ATCAAGTGTA	TCATATGCCA	600
35	AGTACGCCCC	CTATTGACGT	CAATGACGGT	AAATGGCCCG	CCTGGCATTA	TGCCCAGTAC	660
55	ATGACCTTAT	GGGACTTTCC	TACTTGGCAG	TACATCTACG	TATTAGTCAT	CGCTATTACC	720
	ATGGTGATGC	GGTTTTGGCA	GTACATCAAT	GGGCGTGGAT	AGCGGTTTGA	CTCACGGGGA	780
40	TTTCCAAGTC	TCCACCCCAT	TGACGTCAAT	GGGAGTTTGT	TTTGGCACCA	AAATCAACGG	840
	GACTTTCCAA	AATGTCGTAA	CAACTCCGCC	CCATTGACGC	AAATGGGCGG	TAGGCGTGTA	900
45	CGGTGGGAGG	TCTATATAAG	CAGAGCTGGG	TACGTGAACC	GTCAGATCGC	CTGGAGACGC	960
10	CATCACAGAT	CTCTCACTAT	GGATTTTCAG	GTGCAGATTA	TCAGCTTCCT	GCTAATCAGT	1020
	GCTTCAGTCA	TAATGTCCAG	AGGACAAATT	GTTCTCTCCC	AGTCTCCAGC	AATCCTGTCT	1080
50	GCATCTCCAG	GGGAGAAGGT	CACAATGACT	TGCAGGGCCA	GCTCAAGTGT	AAGTTACATC	1140
	CACTGGTTCC	AGCAGAAGCC	AGGATCCTCC	CCCAAACCCT	GGATTTATGC	CACATCCAAC	1200
55	CTGGCTTCTG	GAGTCCCTGT	TCGCTTCAGT	GGCAGTGGGT	CTGGGACTTC	TTACTCTCTC	1260
	ACAATCAGCA	GAGTGGAGGC	TGAAGATGCT	GCCACTTATT	ACTGCCAGCA	GTGGACTAGT	1320
	AACCCACCCA	CGTTCGGAGG	GGGGACCAAG	CTGGAAATCA	AACGTACGGT	GGCTGCACCA	1380
60	TCTGTCTTCA	TCTTCCCGCC	ATCTGATGAG	CAGTTGAAAT	CTGGAACTGC	CTCTGTTGTG	1440

(B)

(C)

(D)

(ii)

(iii)

TYPE: nucleic acid

STRANDEDNESS: single TOPOLOGY: circular

MOLECULE TYPE: DNA (genomic)

HYPOTHETICAL: yes

5

TGCCTGCTGA ATAACTTCTA TCCCAGAGAG GCCAAAGTAC AGTGGAAGGT GGATAACGCC 1500 CTCCAATCGG GTAACTCCCA GGAGAGTGTC ACAGAGCAGG ACAGCAAGGA CAGCACCTAC 1560 5 AGCCTCAGCA GCACCCTGAC GCTGAGCAAA GCAGACTACG AGAAACACAA AGTCTACGCC 1620 TGCGAAGTCA CCCATCAGGG CCTGAGCTCG CCCGTCACAA AGAGCTTCAA CAGGGGAGAG 1680 TGTTGAATTC AGATCCGTTA ACGGTTACCA ACTACCTAGA CTGGATTCGT GACAACATGC 1740 10 GGCCGTGATA TCTACGTATG ATCAGCCTCG ACTGTGCCTT CTAGTTGCCA GCCATCTGTT 1800 GTTTGCCCCT CCCCGTGCC TTCCTTGACC CTGGAAGGTG CCACTCCCAC TGTCCTTTCC 1860 15 TAATAAAATG AGGAAATTGC ATCGCATTGT CTGAGTAGGT GTCATTCTAT TCTGGGGGGT 1920 GGGGTGGGC AGGACAGCAA GGGGGAGGAT TGGGAAGACA ATAGCAGGCA TGCTGGGGAT 1980 GCGGTGGGCT CTATGGAACC AGCTGGGGCT CGACAGCTAT GCCAAGTACG CCCCCTATTG 2040 20 ACGTCAATGA CGGTAAATGG CCCGCCTGGC ATTATGCCCA GTACATGACC TTATGGGACT 2100 TTCCTACTTG GCAGTACATC TACGTATTAG TCATCGCTAT TACCATGGTG ATGCGGTTTT 2160 25 GGCAGTACAT CAATGGGCGT GGATAGCGGT TTGACTCACG GGGATTTCCA AGTCTCCACC 2220 CCATTGACGT CAATGGGAGT TTGTTTTGGC ACCAAAATCA ACGGGACTTT CCAAAATGTC 2280 GTAACAACTC CGCCCCATTG ACGCAAATGG GCGGTAGGCG TGTACGGTGG GAGGTCTATA 2340 30 TAAGCAGAGC TGGGTACGTC CTCACATTCA GTGATCAGCA CTGAACACAG ACCCGTCGAC 2400 ATGGGTTGGA GCCTCATCTT GCTCTTCCTT GTCGCTGTTG CTACGCGTGT CCTGTCCCAG 2460 35 GTACAACTGC AGCAGCCTGG GGCTGAGCTG GTGAAGCCTG GGGCCTCAGT GAAGATGTCC 2520 TGCAAGGCTT CTGGCTACAC ATTTACCAGT TACAATATGC ACTGGGTAAA ACAGACACCT 2580 GGTCGGGGCC TGGAATGGAT TGGAGCTATT TATCCCGGAA ATGGTGATAC TTCCTACAAT 2640 40 CAGAAGTTCA AAGGCAAGGC CACATTGACT GCAGACAAAT CCTCCAGCAC AGCCTACATG 2700 CAGCTCAGCA GCCTGACATC TGAGGACTCT GCGGTCTATT ACTGTGCAAG ATCGACTTAC 2760 45 TACGGCGGTG ACTGGTACTT CAATGTCTGG GGCGCAGGGA CCACGGTCAC CGTCTCTGCA 2820 GCTAGCACCA AGGGCCCATC GGTCTTCCCC CTGGCACCCT CCTCCAAGAG CACCTCTGGG 2880 GGCACAGCGG CCCTGGGCTG CCTGGTCAAG GACTACTTCC CCGAACCGGT GACGGTGTCG 2940 50 TGGAACTCAG GCGCCCTGAC CAGCGGCGTG CACACCTTCC CGGCTGTCCT ACAGTCCTCA 3000 GGACTCTACT CCCTCAGCAG CGTGGTGACC GTGCCCTCCA GCAGCTTGGG CACCCAGACC 3060 55 TACATCTGCA ACGTGAATCA CAAGCCCAGC AACACCAAGG TGGACAAGAA AGCAGAGCCC 3120 AAATCTTGTG ACAAAACTCA CACATGCCCA CCGTGCCCAG CACCTGAACT CCTGGGGGGA 3180 CCGTCAGTCT TCCTCTTCCC CCCAAAACCC AAGGACACCC TCATGATCTC CCGGACCCCT 3240 60 GAGGTCACAT GCGTGGTGGT GGACGTGAGC CACGAAGACC CTGAGGTCAA GTTCAACTGG 3300 TACGTGGACG GCGTGGAGGT GCATAATGCC AAGACAAAGC CGCGGGAGGA GCAGTACAAC 3360

AGCACGTACC GTGTGGTCAG CGTCCTCACC GTCCTGCACC AGGACTGGCT GAATGGCAAG 3420 GAGTACAAGT GCAAGGTCTC CAACAAAGCC CTCCCAGCCC CCATCGAGAA AACCATCTCC 3480 5 AAAGCCAAAG GGCAGCCCCG AGAACCACAG GTGTACACCC TGCCCCCATC CCGGGATGAG 3540 CTGACGAGA ACCAGGTCAG CCTGACCTGC CTGGTCAAAG GCTTCTATCC CAGCGACATG 10 GCCGTGGAGT GGGAGAGCAA TGGGCAGCCG GAGAACAACT ACAAGACCAC GCCTCCCGTG 3660 CTGGACTCCG ACGGCTCCTT CTTCCTCTAC AGCAAGCTCA CCGTGGACAA GAGCAGGTGG 3720 CAGCAGGGGA ACGTCTTCTC ATGCTCCGTG ATGCATGAGG CTCTGCACAA CCACTACACG 3780 15 CAGAAGAGCC TCTCCCTGTC TCCGGGTAAA TGAGGATCCG TTAACGGTTA CCAACTACCT 3840 AGACTGGATT CGTGACAACA TGCGGCCGTG ATATCTACGT ATGATCAGCC TCGACTGTGC 3900 20 CTTCTAGTTG CCAGCCATCT GTTGTTTGCC CCTCCCCGT GCCTTCCTTG ACCCTGGAAG 3960 GTGCCACTCC CACTGTCCTT TCCTAATAAA ATGAGGAAAT TGCATCGCAT TGTCTGAGTA 4020 GGTGTCATTC TATTCTGGGG GGTGGGGTGG GGCAGGACAG CAAGGGGGAG GATTGGGAAG 4080 25 ACAATAGCAG GCATGCTGGG GATGCGGTGG GCTCTATGGA ACCAGCTGGG GCTCGACAGC 4140 GCTGGATCTC CCGATCCCCA GCTTTGCTTC TCAATTTCTT ATTTGCATAA TGAGAAAAAA 4200 30 AGGAAAATTA ATTTTAACAC CAATTCAGTA GTTGATTGAG CAAATGCGTT GCCAAAAAGG 4260 ATGCTTTAGA GACAGTGTTC TCTGCACAGA TAAGGACAAA CATTATTCAG AGGGAGTACC 4320 CAGAGCTGAG ACTCCTAAGC CAGTGAGTGG CACAGCATTC TAGGGAGAAA TATGCTTGTC 4380 35 ATCACCGAAG CCTGATTCCG TAGAGCCACA CCTTGGTAAG GGCCAATCTG CTCACACAGG 4440 ATAGAGAGGG CAGGAGCCAG GGCAGAGCAT ATAAGGTGAG GTAGGATCAG TTGCTCCTCA 4500 40 CATTTGCTTC TGACATAGTT GTGTTGGGAG CTTGGATAGC TTGGACAGCT CAGGGCTGCG 4560 ATTTCGCGCC AAACTTGACG GCAATCCTAG CGTGAAGGCT GGTAGGATTT TATCCCCGCT 4620 GCCATCATGG TTCGACCATT GAACTGCATC GTCGCCGTGT CCCAAAATAT GGGGATTGGC 4680 45 AAGAACGGAG ACCTACCCTG GCCTCCGCTC AGGAACGAGT TCAAGTACTT CCAAAGAATG 4740 ACCACAACCT CTTCAGTGGA AGGTAAACAG AATCTGGTGA TTATGGGTAG GAAAACCTGG 4800 50 TTCTCCATTC CTGAGAAGAA TCGACCTTTA AAGGACAGAA TTAATATAGT TCTCAGTAGA 4860 GAACTCAAAG AACCACCACG AGGAGCTCAT TTTCTTGCCA AAAGTTTGGA TGATGCCTTA 4920 AGACTTATTG AACAACCGGA ATTGGCAAGT AAAGTAGACA TGGTTTGGAT AGTCGGAGGC 4980 55 AGTTCTGTTT ACCAGGAAGC CATGAATCAA CCAGGCCACC TTAGACTCTT TGTGACAAGG 5040 ATCATGCAGG AATTTGAAAG TGACACGTTT TTCCCAGAAA TTGATTTGGG GAAATATAAA 5100 60 CTTCTCCCAG AATACCCAGG CGTCCTCTCT GAGGTCCAGG AGGAAAAAGG CATCAAGTAT 5160 AAGTTTGAAG TCTACGAGAA GAAAGACTAA CAGGAAGATG CTTTCAAGTT CTCTGCTCCC 5220

	CTCCTAAAG	C TATGCATTT	TATAAGACC	A TGGGACTTT	r getggettti	A GATCAGCCTC	5280
	GACTGTGCC	T TCTAGTTGCC	AGCCATCTG1	TGTTTGCCC	TCCCCCGTG	CTTCCTTGAC	5340
5	CCTGGAAGG	r GCCACTCCCA	CTGTCCTTTC	CTAATAAAA1	GAGGAAATTO	CATCGCATTG	5400
	TCTGAGTAG	G TGTCATTCTA	TTCTGGGGGG	TGGGGTGGG	G CAGGACAGCA	AGGGGGAGGA	5460
10	TTOGGAAGA	: AATAGCAGGC	ATGCTGGGGA	receeresec	TCTATGGAAC	CAGCTGGGGC	5520
	TCGAGCTACT	AGCTTTGCTT	CTCAATTTCT	TATTTGCATA	ATGAGAAAAA	AAGGAAAATT	5580
	AATTTTAAC	CCAATTCAGT	AGTTGATTGA	GCAAATGCGT	' TGCCAAAAAG	GATGCTTTAG	5640
15	AGACAGTGTT	CTCTGCACAG	ATAAGGACAA	ACATTATTCA	GAGGGAGTAC	CCAGAGCTGA	5700
	GACTCCTAAG	CCAGTGAGTG	GCACAGCATT	CTAGGGAGAA	ATATGCTTGT	CATCACCGAA	5760
20	GCCTGATTCC	GTAGAGCCAC	ACCTTGGTAA	GGGCCAATCT	GCTCACACAG	GATAGAGAGG	5820
20	GCAGGAGCCA	GGGCAGAGCA	TATAAGGTGA	GGTAGGATCA	GTTGCTCCTC	ACATTTGCTT	5880
	CTGACATAGT	TGTGTTGGGA	GCTTGGATCG	ATCCTCTATG	GTTGAACAAG	ATGGATTGCA	5940
25	CGCAGGTTCT	CCGGCCGCTT	GGGTGGAGAG	GCTATTCGGC	TATGACTGGG	CACAACAGAC	6000
	AATCGGCTGC	TCTGATGCCG	CCGTGTTCCG	GCTGTCAGCG	CAGGGGCGCC	CGGTTCTTTT	6060
30	TGTCAAGACC	GACCTGTCCG	GTGCCCTGAA	TGAACTGCAG	GACGAGGCAG	CGCGGCTATC	6120
	GTGGCTGGCC	ACGACGGGCG	TTCCTTGCGC	AGCTGTGCTC	GACGTTGTCA	CTGAAGCGGG	6180
	AAGGGACTGG	CTGCTATTGG	GCGAAGTGCC	GGGGCAGGAT	CTCCTGTCAT	CTCACCTTGC	6240
35	TCCTGCCGAG	AAAGTATCCA	TCATGGCTGA	TGCAATGCGG	CGGCTGCATA	CGCTTGATCC	6300
	GGCTACCTGC	CCATTCGACC	ACCAAGCGAA	ACATCGCATC	GAGCGAGCAC	GTACTCGGAT	6360
40	GGAAGCCGGT	CTTGTCGATC	AGGATGATCT	GGACGAAGAG	CATCAGGGGC	TCGCGCCAGC	6420
	CGAACTGTTC	GCCAGGCTCA	AGGCGCGCAT	GCCCGACGGC	GAGGATCTCG	TCGTGACCCA	6480
	TGGCGATGCC	TGCTTGCCGA	ATATCATGGT	GGAAAATGGC	CGCTTTTCTG	GATTCATCGA	6540
<b>4</b> 5	CTGTGGCCGG	CTGGGTGTGG	CGGACCGCTA	TCAGGACATA	GCGTTGGCTA	CCCGTGATAT	6600
	TGCTGAAGAG	CTTGGCGGCG	AATGGGCTGA	CCGCTTCCTC	GTGCTTTACG	GTATCGCCGC	6660
50	TCCCGATTCG	CAGCGCATCG	CCTTCTATCG	CCTTCTTGAC	GAGTTCTTCT	GAGCGGGACT	6720
	CTGGGGTTCG	AAATGACCGA	CCAAGCGACG	CCCAACCTGC	CATCACGAGA	TTTCGATTCC	6780
	ACCGCCGCCT	TCTATGAAAG	GTTGGGCTTC	GGAATCGTTT	TCCGGGACGC	CGGCTGGATG	6840
55	ATCCTCCAGC	GCGGGGATCT	CATGCTGGAG	TTCTTCGCCC	ACCCCAACTT	GTTTATTGCA	6900
	GCTTATAATG	GTTACAAATA	AAGCAATAGC	ATCACAAATT	тсасааатаа	AGCATTTTTT	6960
60	TCACTGCATT	CTAGTTGTGG	TTTGTCCAAA	CTCATCAATC	TATCTTATCA	TGTCTGGATC	7020
30	GCGGCCGCGA	TCCCGTCGAG	AGCTTGGCGT	AATCATGGTC	ATAGCTGTTT	CCTGTGTGAA	7080
	ATTGTTATCC	GCTCACAATT	CCACACAACA	TACGAGCCGG	AAGCATAAAG	TGTAAAGCCT	7140

GGGGTGCCTA ATGAGTGAGC TAACTCACAT TAATTGCGTT GCGCTCACTG CCCGCTTTCC AGTCGGGAAA CCTGTCGTGC CAGCTGCATT AATGAATCGG CCAACGCGCG GGGAGAGGCG 7260 5 GTTTGCGTAT TGGGCGCTCT TCCGCTTCCT CGCTCACTGA CTCGCTGCGC TCGGTCGTTC 7320 DASTAGORDA SOTATTODOS TAATODOS DA SOTATO ACOUTATO ACOUTATO DA SOTATODOS DA SOTATODO 7380 10 GGGATAACGC AGGAAAGAAC ATGTGAGCAA AAGGCCAGCA AAAGGCCAGG AACCGTAAAA 7440 AGGCCGCGTT GCTGGCGTTT TTCCATAGGC TCCGCCCCCC TGACGAGCAT CACAAAAATC 7500 GACGCTCAAG TCAGAGGTGG CGAAACCCGA CAGGACTATA AAGATACCAG GCGTTTCCCC 7560 15 CTGGAAGCTC CCTCGTGCGC TCTCCTGTTC CGACCCTGCC GCTTACCGGA TACCTGTCCG 7620 CCTTTCTCCC TTCGGGAAGC GTGGCGCTTT CTCAATGCTC ACGCTGTAGG TATCTCAGTT 7680 20 CGGTGTAGGT CGTTCGCTCC AAGCTGGGCT GTGTGCACGA ACCCCCCGTT CAGCCCGACC 7740 GCTGCGCCTT ATCCGGTAAC TATCGTCTTG AGTCCAACCC GGTAAGACAC GACTTATCGC 7800 CACTGGCAGC AGCCACTGGT AACAGGATTA GCAGAGCGAG GTATGTAGGC GGTGCTACAG 7860 25 AGTTCTTGAA GTGGTGGCCT AACTACGGCT ACACTAGAAG GACAGTATTT GGTATCTGCG 7920 CTCTGCTGAA GCCAGTTACC TTCGGAAAAA GAGTTGGTAG CTCTTGATCC GGCAAACAAA 7980 30 CCACCGCTGG TAGCGGTGGT TTTTTTGTTT GCAAGCAGCA GATTACGCGC AGAAAAAAAG 8040 GATCTCAAGA AGATCCTTTG ATCTTTTCTA CGGGGTCTGA CGCTCAGTGG AACGAAAACT 8100 CACGTTAAGG GATTTTGGTC ATGAGATTAT CAAAAAGGAT CTTCACCTAG ATCCTTTTAA 8160 35 ATTAAAAATG AAGTTTTAAA TCAATCTAAA GTATATATGA GTAAACTTGG TCTGACAGTT 8220 ACCAATGCTT AATCAGTGAG GCACCTATCT CAGCGATCTG TCTATTTCGT TCATCCATAG 8280 40 TTGCCTGACT CCCCGTCGTG TAGATAACTA CGATACGGGA GGGCTTACCA TCTGGCCCCA 8340 GTGCTGCAAT GATACCGCGA GACCCACGCT CACCGGCTCC AGATTTATCA GCAATAAACC 8400 AGCCAGCCGG AAGGGCCGAG CGCAGAAGTG GTCCTGCAAC TTTATCCGCC TCCATCCAGT 8460 45 CTATTAATTG TTGCCGGGAA GCTAGAGTAA GTAGTTCGCC AGTTAATAGT TTGCGCAACG 8520 TTGTTGCCAT TGCTACAGGC ATCGTGGTGT CACGCTCGTC GTTTGGTATG GCTTCATTCA 8580 50 GCTCCGGTTC CCAACGATCA AGGCGAGTTA CATGATCCCC CATGTTGTGC AAAAAAGCGG 8640 TTAGCTCCTT CGGTCCTCCG ATCGTTGTCA GAAGTAAGTT GGCCGCAGTG TTATCACTCA 8700 TGGTTATGGC AGCACTGCAT AATTCTCTTA CTGTCATGCC ATCCGTAAGA TGCTTTTCTG 8760 55 TGACTGGTGA GTACTCAACC AAGTCATTCT GAGAATAGTG TATGCGGCGA CCGAGTTGCT 8820 CTTGCCCGGC GTCAATACGG GATAATACCG CGCCACATAG CAGAACTTTA AAAGTGCTCA 8880 60 TCATTGGAAA ACGTTCTTCG GGGCGAAAAC TCTCAAGGAT CTTACCGCTG TTGAGATCCA 8940 GTTCGATGTA ACCCACTCGT GCACCCAACT GATCTTCAGC ATCTTTACT TTCACCAGCG 9000

	TTT	CTGGGT	G AGCAAAAACA GGAAGGCAAA ATGCCGCAAA AAAGGGAATA AGGGCGACAC	9060
	GGA	AATGTT	G AATACTCATA CTCTTCCTTT TTCAATATTA TTGAAGCATT TATCAGGGTT	9120
5	ATT	GTCTCA	T GAGCGGATAC ATATTTGAAT GTATTTAGAA AAATAAACAA ATAGGGGTTC	9180
	CGC	GCACAT	T TCCCCGAAAA GTGCCACCT	9209
10	(4)	INFO	RMATION FOR SEQ ID NO: 3;	
		(i)	SEQUENCE CHARACTERISTICS:	
15			(A) LENGTH: 54 bases (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
20		(ii)	MOLECULE TYPE: DNA (genomic)	
20		(iii)	HYPOTHETICAL: yes	
		(iv)	ANTI-SENSE: no	
25		(ix)	SEQUENCE DESCRIPTION: SEQ ID NO: 3:	
			C ACA GAT CTC TCA CCA TGG ATT TTC AGG TBC AGA TTA TCA GCT 3'	52 2
30	(5)	INFC	RMATION FOR SEQ ID NO: 4:	
		(i)	SEQUENCE CHARACTERISTICS:	
35		٠	<ul> <li>(A) LENGTH: 30 bases</li> <li>(B) TYPE: nucleic acid</li> <li>(C) STRANDEDNESS: single</li> <li>(D) TOPOLOGY: linear</li> </ul>	
40		(ii)	MOLECULE TYPE: DNA (genomic)	
		(iii)	HYPOTHETICAL: yes	
45		(iv)	ANTI-SENSE: yes	
40		(ix)	SEQUENCE DESCRIPTION: SEQ ID NO: 4:	
50		5' TG	C AGC ATC CGT ACG TTT GAT TTC CAG CTT 3'	30
	(6)	INFO	RMATION FOR SEQ ID NO: 5:	
55		(i)	SEQUENCE CHARACTERISTICS:	

			-	3)	TYF	E: 1	nucle DED	84 beic ac NES	cid SS: s	singl	e							
5		(ii)	M	OLE	CU	LE I	YPE	E: D	NA (	geno	omic)	)						
,		(ili)	H	YPC	THE	CTIC	AL:	yes										
10		(iv)	A	NTI-	SEN	ISE:	no											
		(ix)	S	EQU	ENG	CE D	ESC	CRIP	TIO	N: S	SEQ	ID N	Ю:	5:				
15	ATG	GAT	TTT	CAG	GTG	CAG	ATT	ATC	AGC	TTC	CTG	CTA	ATC	AGT	GCT	TCA	GTC	5:
	ATA	ATG	TCC	AGA	GGG	CAA	ATT	GTT	CTC	TCC	CAG	TCT	CCA	GCA	ATC	CTG	TCT	10
00	GCA	TCT	CCA	GGG	GAG	AAG	GTC	ACA	ATG	ACT	TGC	AGG	GCC	AGC	TCA	AGT	GTA	15
20	AGT	TAC	ATC	CAC	TGG	TTC	CAG	CAG	AAG	CCA	GGA	TCC	TCC	ccc	AAA	ccc	TGG	204
	ATT	TAT	GCC	ACA	TCC	AAC	CTG	GCT	TCT	GGA	GTC	CCT	GTT	CGC	TTC	AGT	GGC	25
25	AGT	GGG	TCT	GGG	ACT	TCT	TAC	TCT	CTC	ACA	ATC	AGC	AGA	GTG	GAG	GCT	GAA	30
	GAT	GCT	GCC	ACT	TAT	TAC	TGC	CAG	CAG	TGG	ACT	AGT	AAC	CCA	CCC	ACG	TTC	35
30	GGA	GGG	GGG	ACC	AAG	CTG	GAA	ATC	AAA									38
	(7)	INE	ORI	MAT	ION	FO	R SE	Q II	) NC	): 6:								
		(i)	S	EQU	JEN	CE (	CHA	RAC	TER	IST	ICS:							
35	(A) LENGTH: 27 bases (B) TYPE: nucleic acid (C) STRANDEDNESS: single																	
40		(ii)	_	D) IOL				E: D		(gen	omic	:)						
		(iii)	E	IYP(	)TH	ETI	CAL	: yes	5									
45		(iv)	A	NTI	-SEI	NSE	: no											
		(ix)	S	EQU	JEN	CE I	DES	CRII	PTIC	N:	SEQ	ID	NO:	6:				
50		5'	GCG	GCT	ccc	ACG	CGT	GTC	CTG	TCC	CAG	3 '						27

	(8)	IN	INFORMATION FOR SEQ ID NO: 7:															
		(i)		SEQ	UEN	ICE	CHA	ARA(	CTE	RIST	CICS	:						
5				(A) (B) (C) (D)	TY ST	PE:	nuc VDE	leic DNE	ases acid ISS: inear	sins	r]e							
10		(ii)	t	MOI	MOLECULE TYPE: DNA (genomic)													
		(iii	.)	HYP	OTE	ETI	CAL	₄: ye	s									
		(iv	)	ANTI-SENSE: yes														
15		(ix	)	SEQ	UEN	ICE	DES	CRI	PTI(	ON:	SEG	ID :	NO:	<b>7</b> :				
		5'	GGS	TGT	TGT	GCT	AGC	TGM	RGA	GAC	rgt	GA :	3 '	29				
20	(0)	TAT	EOI	) <b>3.</b> T. A. I	יי איז	N EC	ים מי	ᇚᄼᅚ	T) N	O. 0								
	(9)		INFORMATION FOR SEQ ID NO: 8:  (i) SEQUENCE CHARACTERISTICS:															
2=		(1)		·							TCS:							
25			<ul> <li>(A) LENGTH: 420 bases</li> <li>(B) TYPE: nucleic acid</li> <li>(C) STRANDEDNESS: single</li> <li>(D) TOPOLOGY: linear</li> </ul>															
30		(ii)		MOL	ECU	JLE	TYF	E: I	ONA	(ger	omi	c)						
		(iii	)	HYP	OTE	IETI	CAL	.: ye	s									
35		(iv	(iv) ANTI-SENSE: no															
39		(ix	)	SEQ	UEN	ICE	DES	CRI	PTIC	ON:	SEG	D ID	NO:	8:				
40	ATG	GGT	TGG	AGC	CTC	ATC	TTG	CTC	TTC	CTT	GTC	GCT	GTT	GCT	ACG	CGT	GTC	51
40	CTG	TCC	CAG	GTA	CAA	CTG	CAG	CAG	CCT	GGG	GCT	GAG	CTG	GTG	AAG	CCT	GGG	102
	GCC	TCA	GTG	AAG	ATG	TCC	TGC	AAG	GCT	TCT	GGC	TAC	ACA	TTT	ACC	AGT	TAC	153
45	AAT	ATG	CAC	TGG	GTA	AAA	CAG	ACA	CCT	GGT	CGG	GGC	CTG	GAA	TGG	ATT	GGA	204
	GCT	ATT	TAT	CCC	GGA	AAT	GGT	GAT	ACT	TCC	TAC	AAT	CAG	AAG	TTC	AAA	GGC	255
50	AAG	GCC	ACA	TTG	ACT	GCA	GAC	AAA	TCC	TCC	AGC	ACA	GCC	TAC	ATG	CAG	CTC	306
				ACA														357
		TAC GTC		GGT GCA	GAC	TGG	TAC	TTC	AAT	GTC	TGG	GGC	GCA	GGG	ACC	ACG	GTC	408 420